

Abstract of the Disclosure

This patent application demonstrates a process and apparatus for hiding auxiliary information within original data such that the process is extremely efficient and minimally perceived by humans, known as watermarking or steganography. One use of this hidden data is to copyright digital media, including audio, images or video, to stop this illegal duplication process. The invented process involves using detection criteria within the original data to adjust neighboring data to carry the auxiliary information. The detection criteria allow the process to find locations to embed the data where masking reduces its perception without the complex transformations, such as those to the frequency domain. The process can be adjusted according to the desired tradeoffs between perception, coding rate and robustness to attack. To this end, the process can be implemented at a much lower cost than competing algorithms usually with less degradation in quality.